

each surface structure extending laterally across said primary surfaces, each surface structure comprising at least one row of elongate directing elements, said elongate directing elements being arranged obliquely with respect to the longitudinal direction of the primary surfaces, said elongate directing elements in each row being mutually parallel;

said surface structures being alternately arranged in the longitudinal direction on the first and second primary surfaces, the directing elements in each laterally extending row of each surface structure being substantially parallel to the directing elements in the succeeding row of the succeeding surface structure on the opposing primary surface in the longitudinal direction of the tube;

said surface structure further comprising a laterally extending second row of mutually parallel directing elements, the directing elements of the second row being arranged at an angle (γ) relative to the directing elements of the first row;

wherein for each of the mutually parallel directing elements in the first row or the second row, a line tangent to the longitudinal edge of the directing elements intersects a tip of a directing element in the other of the first and second rows.

21. (Twice Amended) Means for effecting heat transfer in a heat exchanger, comprising:

means for introducing a plurality of partial flows into a heat exchanger tube, the tube defining a longitudinal axis and

means for imparting to each of said partial flows a swirling motion about the longitudinal axis, wherein said means for imparting said swirling motion comprises elongated directing elements on said surfaces of said tube, said elongated directing elements are situated substantially parallel in a first row and a second row substantially parallel, wherein for